Trenton Channel

Detroit River

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The Mercury Pollution Problem in Michigan

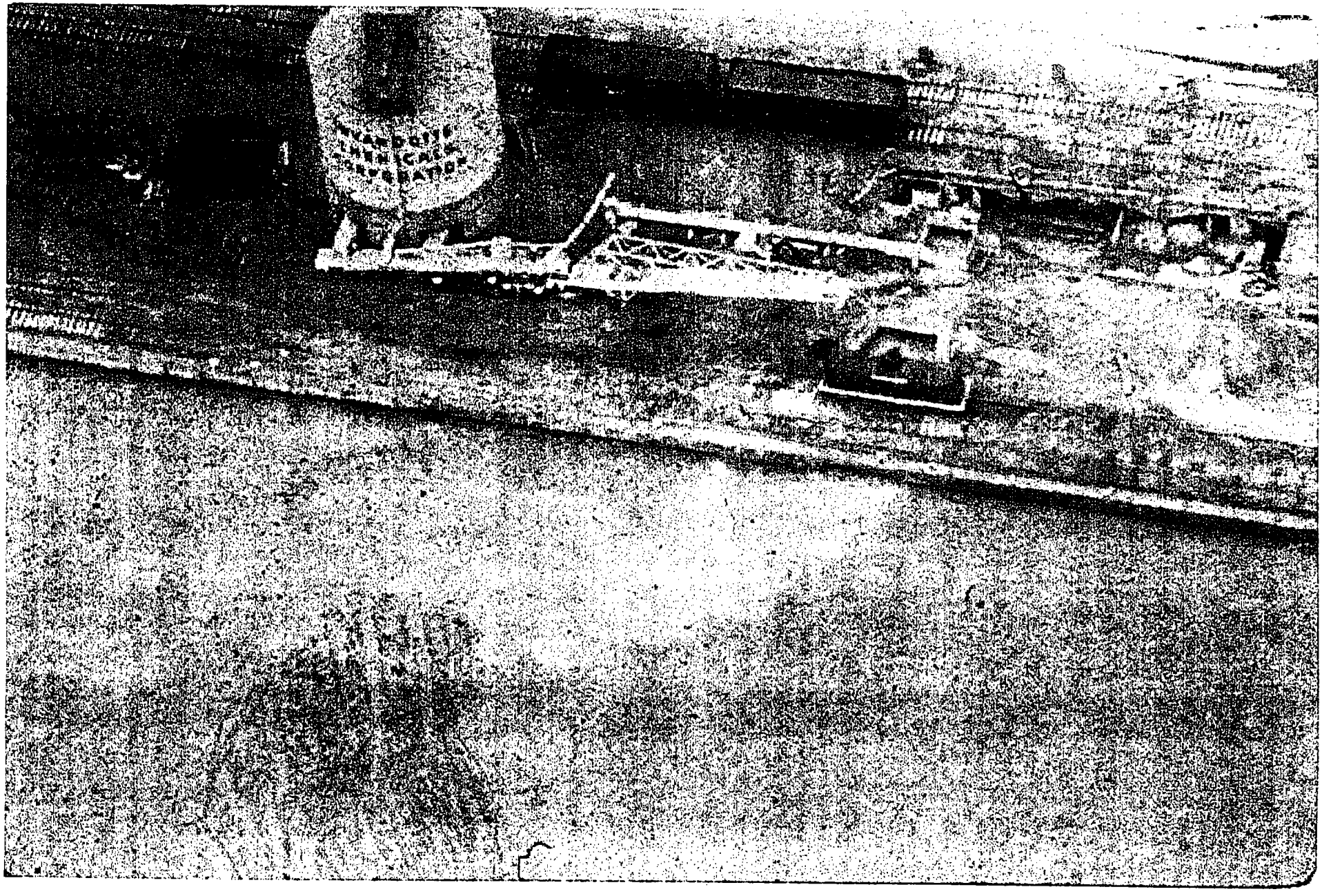
William G. Turney

After Michigan learned about the mercury problem in February, 1970, the Michigan Water Resources Commission began a rather extensive review of all industries and communities around the state, trying to find whether or not there were any point discharges going into the waters of the state. It originally found two; one was Wyandotte Chemical, which has a chlor-alkali plant located on the Detroit River. Before a control program was instituted, Wyandotte Chemical was discharging approximately 10 to 20 pounds of mercury per day. The other point discharge source of mercury was General Electric Company, a small manufacturing plant located in the middle of the state near Edmore, Michigan. This company manufactures magnets for electronic components, and they are the sole manufacturer of this particular type of magnet, used by the U.S. Department of Defense. Their discharge was approximately 1,500 pounds of mercury per year, most of which was released as elemental mercury. The effect on the environment was very isolated in and around the plant location and there was no real damage to the fishery in the area.

Location of Wyandotte-Southworks: Mercury cell-Chlor Alkali Facility

High Hg in Sediment

Riverview Landfill



BASF Southworks 1968

Firestone Steel
Federal Marine Terminal

Sediments
Contaminated

Clean
Clay
(flow 3ft/sec)

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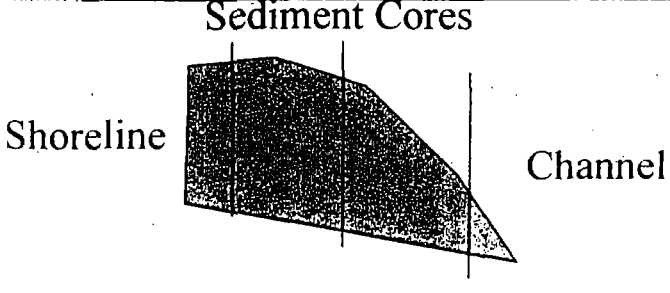
Mercury in Sediments (ppm max)
-locations are approximate

Firestone Steel
Federal Marine Terminal
Area



Cross-section of Contaminated Sediments
Range of Hg in Sediments <0.1 - 16 ppm
(MDEQ-SWQD Report 97-084)

Estimated Volume of
Extremely (> 60 * BIOTOX)
Contaminated Sediments

Firestone Steel
Federal Marine Terminal
Area

$100 – 130 appl.
$12 M.?

120,000 Total Cubic Yards
(MDEQ-SWQD Report 97-084)